as effectually check the more general flow of subscriptions from the public at large.

A vote of thanks to the chairman was then carried by acclamation, and the meeting separated after many of them had subscribed their names to the list, which had been previously read.

PROTECTION OF STONE-WORK.

Sir,—With respect to the preservation of marble and other calcareous stone from Atmospheric Influence, I cannot but think that the process invented for that purpose by F. Kuhlmann, of Lille, as stated in your account of a recent meeting of the Royal Institute of Architects (and to whose museum I have presented specimens of its good effect), would be at once more serviceable, more easily employed, and of infinitely less cost, than the application of wax, as recommended at page 313 of your No. of the 3rd inst.

M. Kuhlmann's process is, simply to mix in an iron vessel, with a solution in ten gallons of water of half a hundred weight of the impure carbonate of soda, called barille—a quarter of a hundred weight (and gradually more, if necessary), of any clean siliceous grit-sand (or scrapings of flint-made roads, well washed from extraneous matter), until this sand shall cease to be dissolved even by a strong heat applied for some few hours to the vessel.

The *rationale* of the process is this:—Calcareous stones, and many stones called siliceous stones, consist chiefly of lime combined with carbonic acid, *i. e.* carbonate of lime. In the employment of the above-described protective solution (which is a silicate of soda), a truly chemical double elective attraction takes place—the soda going to the carbonic acid of the stone, while the silica going to the lime penetrates the stone to a depth (but without altering the *form* of its surface) proportionate to the siliceous strength of the solution and the length of time given to its application.

This application may be effected either by immersing dressed or sculptured blocks in the clear and hot siliceous solution, or by brushing them over with it cold, before, or subsequently to, their being set up.

M. Kuhlmann's process also improves the colour of the stone, and produces a hardness which, after a few days exposure to the air, becomes so great as to resist any scratching, except that of a sharp instrument; and it is, therefore, peculiarly adapted for case-hardening all new delicately sculptured work in soft stone, if not also for preventing the farther decay of many of our now mouldering monuments.

W. Bromet.

THE ELECTRIC FIRE AND THIEVES' ALARUM.

Mr. G. Petrie, the telegraphist at London and Blackwall Railway, proposes to us to facilitate the saving of buildings and property from destruction by fire, also to save with *certainty*, the lives of the inmates of dwelling-houses which may happen to take fire, and to prevent depredations by thieves, by means of electricity; causing the fire itself or the thieves themselves to *act necessarily* upon apparatus which shall convey *audible*, *visible*, and *sensible* alarm signals to the inmates or to watchmen. This scheme has not been put in practice although he has had it long in contemplation: we will let him state it in his own words:—

The audible signals may consist of bells, whistles, explosions, or any other signals which address themselves to the sense of hearing, and may be made to act with more and more vigour as the danger increases. The visible signals may be coloured glass, and lights in motion or at rest, red or yellow glass to signify fire, and blue or green glass to signify thieves. The sensible signals may consist of jets of cold water, so arranged as to commence pouring down on the pillows of all the beds, *a few seconds after* the *audible* fire signals have begun to sound, or they may consist of any other signals which will rouse the inmates of the house. In dangerous localities, an apparatus may be added whereby if thieves should succeed in effecting an entrance, the first step which they take on the threshold will discharge at them a charge of gunpowder, and if this warning should not be heeded by the thieves, a second step in advance will wound them in the legs with small shot, and a third step shoot them dead. A set of buildings may have one apparatus to serve the whole set, and the visible signals may be so arranged as to point out the particular house wherein the fire is just beginning to break out, or the house wherein the thieves have just entered, and in orchards, &c., the visible signals may be so arranged as to form a guide to the place where the signal originated, so that in all these cases no time need be lost in finding out the exact place where assistance is required. The alarums may operate not only in and about the house or set of houses where the danger exists, but also at any distant place wherever it may be desirable that some or all of these alarm signals should be perceived.

As to the mode:—The alarm signals may be made to operate either by the *breaking* or by the *completing* of the electric circuits, according to whichever plan may be most convenient for the particular apparatus employed, and in all cases the electric circuits may be *broken* or *completed* either by *springs*, or *by wires and vessels of mercury*. The electric circuits are broken or completed by fire in the following manner: either by means of the flame which runs up the walls, or else by means of the heated air which rises to the ceiling. The flame running up the wall, comes in contact with an inflammable cord, which runs horizontally along the wall, and the burning of this cord in any part, lets fall a weight which allows a spring to fly back and break or complete the electric circuit. The hot air which rises to the ceiling operates by causing the expansion of mercury or air or any other elastic or non-elastic fluid which is contained in tubes and other vessels—or by causing the expansion of metallic rods or sheets, or any other suitable solid substances—or by the depression of mercury by the expansion of enclosed air.

For the thieves' alarum, the electric circuits are broken or completed by the opening of doors, windows, shutters, boxes, drawers, cupboards, closets, &c., and also by the withdrawal of fastenings, and also by footsteps on staircases or on the thresholds of doors, windows, and other inlets, and also by any person getting over the boundary wall of an orchard or any other place.

The insulated electric circuits are arranged so that any one or more of the doors, windows, boxes, drawers, closets, &c., in a house can be instantly placed under the safeguard of the alarum, without the others being so placed, or by the turning of one handle, situate in the bedroom of the master of the house, the whole house and every thing in it may be instantly placed under the safeguard of the alarum.

Many modifications of the apparatus are described, but enough has been said to shew the nature of the proposal.*

Old Paintings in Eton College Chapel.—It was mentioned in The Builder the week before last, that on the removal of the wainscotting from the walls of Eton College Chapel, in consequence of the repairs now going on there, some ancient paintings had been brought to light. According to the *Daily News*, "these paintings, which appear to have been executed by Florentine artists between 1440 and 1480, and which are in a very fair state of preservation, represent a variety of miracles, alleged, by the Romish church, to have been performed by the Virgin Mary. It appears that when the choir was enlarged, under the superintendence of Sir Christopher Wren, these frescoes (?), some of which were not considered very appropriate ornaments at that time for a place of worship, were hidden from view behind the oaken panelling. Hence their preservation up to this period. It is the intention of the provost and fellows of Eton to cause as many of these works of art to be preserved as will not interfere with the alterations and embellishments now in progress. It has been suggested that the old oak panelling should be replaced, and that doors should be made to open in front of the paintings, so that they might at any time be inspected."

* "At the pleasure of the inmates of the house the apparatus may be made to ventilate the rooms at any particular temperature, and if the electric fire-circuits are broken or completed by the expansion of metallic rods instead of by the expansion of fluids inclosed in vessels, then the apparatus may be so arranged as during a thunder-storm to protect the inmates of the house against the effects of lightning, by causing any lightning which may happen to come into any of the rooms to fly to the ceiling, and from thence to run quietly into the earth."

BRITISH ARCHÆOLOGICAL ASSOCIATION.

The British Archæological Association opened their congress at Warwick on Monday last, and have had a very agreeable and successful meeting. Much has been seen and much done, and we shall, next week, give a detailed notice of such of the proceedings as more particularly interest our readers. Lord Brooke presided at the opening meeting, and has been assisted by Sir Charles Douglas, M.P., Sir Samuel Meyrick, Sir Wm. Betham, Sir Henry Dillon, Mr. Pettigrew, Mr. Crofton Croker, and many others.

NOTES IN THE PROVINCES.

Is Earl Fitz-William aware, says the *Leicester Mercury*, commenting on his lordship's complaint of the twopenny exhibition of St. Paul's, that in his own city of Peterborough, 6d. is demanded as a fee from every person on going into the minster except during divine service? St. Paul's is certainly a 'dirt cheap' exhibition when compared with that.——In Lincoln cathedral, a nave window designed from one in Chartres cathedral, is now being put up by Sir Charles Anderson.——The new dispensary in course of erection at Reading was much damaged by lightning on Saturday last. The upper portion of the building, comprising 'the entire huge coping' was overthrown, and several of the front projecting parts also demolished. A contemporary says, that 'no lives were fortunately sacrificed beyond' the narrow escape of an old lady in bed, who remained obdurate with a heavy stone suspended, like the sword of Damocles, above her head.——The Rev. T. Twisden, rector of Charleton, has offered the sum of 500*l.* towards the rebuilding of his church in a more convenient and central site.——The contracts for laying down the Newport Water-pipes from Carisbrooke, erecting a reservoir, tank, &c., being sent in on Wednesday and the successful contractor then ascertained, it is expected that the works will be forthwith proceeded with.——The projected improvements in the parish church of Chippenham were commenced on Monday week.——On Tuesday week before last the new church of Trevethin, near Pontypool, erected at a cost of 2,600*l.*, collected in voluntary contributions, was consecrated. It is in the perpendicular style, with five stained-glass windows, one of them the gift of the architect, Mr. Wyatt, and the others that of Mr. J. Harley, of Wainwern.——The Liverpool Guardian Gas Company have complained to the council of "the acts committed on behalf of the corporation in the present session of Parliament." They attribute the defeat of their bill to the conduct of the counsel who acted in London for the corporation, and protested against the want of good faith to the inhabitants displayed in such acts. It is said that the Dale-street Company have recently put themselves in communication with Mr. Cox, the engineer of the Guardian Company, and given him the opportunity of trying experiments here, at their expense, in the production of gas at the cheap price he has declared it to be in his power to produce it at.——The *Albion* states that in no less than eighty cases brought before a stipendary magistrate of Liverpool on Friday and Saturday week, for letting cellars to Irish immigrants, the said cellars being only about 6 feet in height from floor to ceiling, and the ceilings being about a foot or a foot and a half above the level of the street, a fine of 1*l.* 4*s.* 6*d.* was inflicted in every case, and a determination made to levy a similar fine for every day the cellars should continue to be occupied after that first conviction.——The mayor of Wigan has issued a proclamation, announcing that parties who neglect to keep their houses in a cleanly condition, will be brought up and fined under the bye-laws.——An association, says the *Albion*, something between a tontine and a joint-stock building association, has been formed by influential persons at Birkenhead, for the purchase of all the unsold land in the park there, and the erection thereon of thirty to fifty villas and terrace-houses.——Heather Church, says the *Leicester Journal*, is to be re-opened on 27th instant, after being renovated and enlarged under the direction of Mr. H. J. Stevens, of Derby. The whole nave has been allotted to free-sittings.

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